

ABSTRACT

A solid electrolytic capacitor comprising (1) an electrically conducting polymer composition formed on the surface of an oxide film which is formed on a valve-acting metal, by specifying the viscosity of an oxidizing agent solution and/or a monomer solution, particularly by specifying the viscosity to less than about 100 cp, (2) an electroconducting polymer composition formed on the surface of an oxide film layer which is formed on a valve-acting metal, wherein the electroconducting polymer layer comprising a monomer compound or a derivative thereof as a repeating unit and also containing an anionic dopant is polymerized by setting the humidity in the atmosphere to from about 10% to less than about 60%; (3) an anode body having provided on the outer surface thereof a solid electrolyte formed of an electrically conducting polymer containing a lamellar structure, wherein the solid electrolyte provided on the dielectric film formed on a valve acting metal occupies from about 10 to about 95% of the space in a pore of the electrode, and (4) a method for producing a solid electrolytic capacitor comprising forming a dielectric film on a porous valve acting metal and forming a solid electrolyte in the dielectric film, wherein the solid electrolyte is formed to cover about 60% or more of the dielectric film.